

1.0 INTRODUCTION

The Federal Energy Regulatory Commission (FERC or Commission) prepared this environmental assessment (EA) to address the potential environmental effects of the construction and operation of facilities by TransColorado Gas Transmission Company (TransColorado) in two counties in west-central Colorado.

On January 6, 2005, TransColorado filed an application (Docket No. CP05-45-000¹) with the Commission seeking authorization to construct and operate a new Greasewood Compressor Station and related facilities in Rio Blanco and Mesa Counties, Colorado, together known as the North Expansion Project (Project). TransColorado proposed to complete construction and begin operation of these facilities by January 1, 2006. The general locations of Project facilities are shown on Figure 1.1.

We² prepared this EA in compliance with the requirements of the *National Environmental Policy Act* (NEPA) of 1969, the Council on Environmental Quality regulations for implementing NEPA (Title 40 *Code of Federal Regulations* [C.F.R.] Parts 1500-1508), and the Commission's implementing regulations under Title 18 C.F.R. Part 380. The U.S. Bureau of Land Management (BLM), White River Field Office, is serving as a cooperating agency for the environmental review and preparation of this EA for the Rio Blanco County Greasewood Compressor Station portion of the Project.

The assessment of environmental effects is an important and integral part of the FERC's decision as to whether to issue TransColorado a Certificate of Public Convenience and Necessity (Certificate) to construct and operate the proposed facilities. Our principal purposes in preparing this EA are:

- to identify and assess potential effects to the natural and human environment that would result from implementation of the proposed action;
- to assess reasonable alternatives to the proposed action that would avoid or minimize effect to the environment; and
- to identify and recommend alternatives and specific mitigation measures as necessary to minimize environmental effects.

1.1 Purpose and Need

TransColorado indicates that the North Expansion Project would provide greatly improved capability for Piceance Basin gas supplies to access the Greasewood Hub. With the North Expansion, TransColorado would provide the infrastructure necessary to transport gas, up

¹ TransColorado's application was filed with the Commission under Section 7 of the Natural Gas Act and subpart A of part 157 of the commission's regulations.

² "We," "us," and "our" refer to the environmental staff of the Office of Energy Projects.

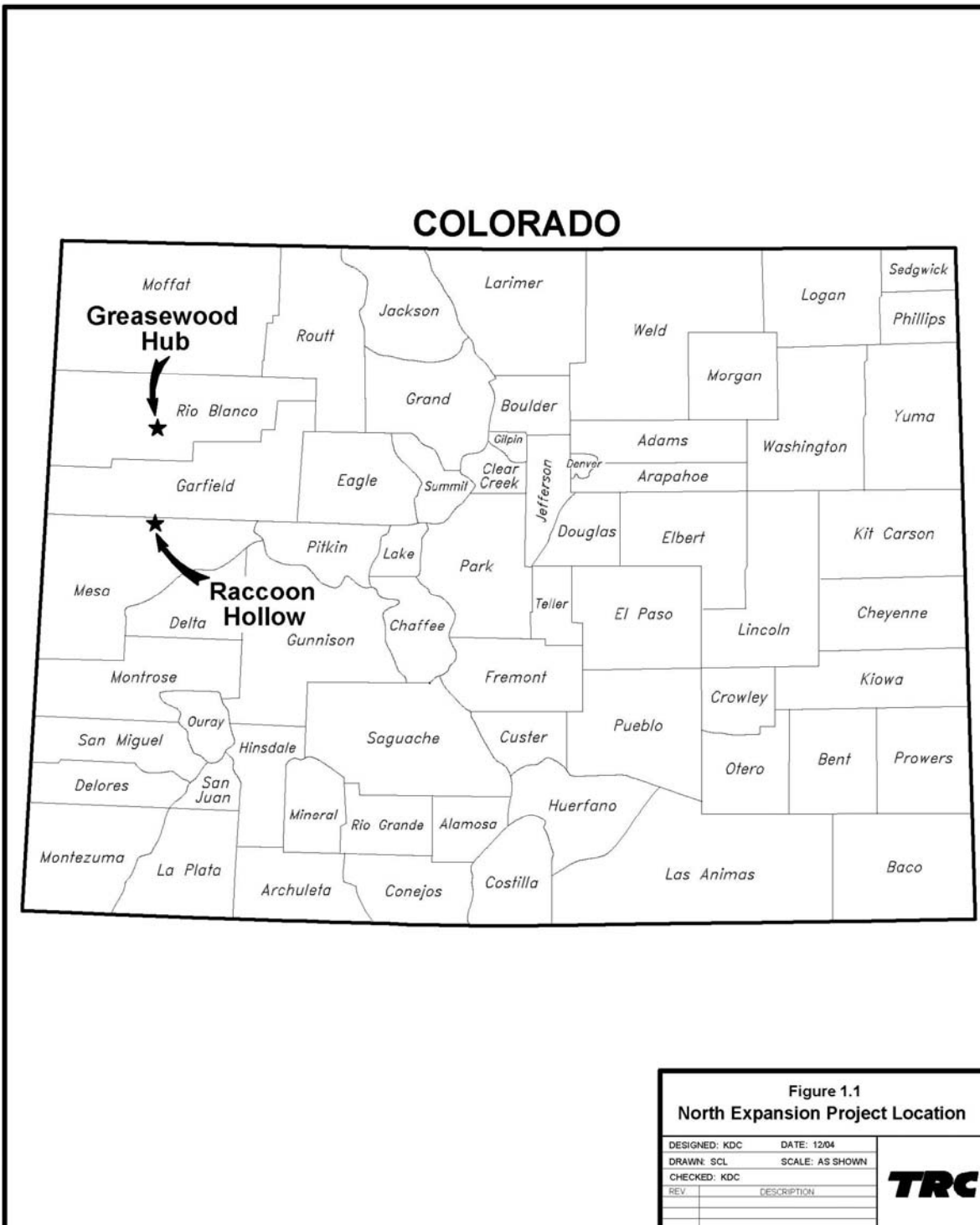


Figure 1.1 Project Location.

to 300,000 dekatherms per day, northward from the Piceance Basin and deliver that gas into higher pressure interconnecting pipelines at the Greasewood Hub.

TransColorado indicates that its North Expansion Project would provide an efficient approach to expanding market access for Piceance Basin gas supplies while minimizing environmental and other impacts. TransColorado would expand its existing inlet interconnections near De Beque, Colorado, with producer-owned gathering systems as well as develop new and expanded outlets to the interstate pipeline grid at the Greasewood Hub. Specifically the proposed new compressor station at the Greasewood Hub would permit shippers flowing gas north to flow into the higher pressures of interconnecting pipelines at Greasewood.

1.2 Nonjurisdictional Facilities

There are no nonjurisdictional facilities associated with the proposed project. However, TransColorado would construct auxiliary facilities pursuant to 18 C.F.R, Part 2.55 at the compressor station. These facilities would include an emergency electric power generator, station piping, valves and flanges, station yard facilities, buildings, station supervisory control systems, silencing equipment, and cathodic protection. All section 2.55(a) facilities would be located within the new site for which authorization is sought in the current application and are being considered in this EA. Therefore, the potential environmental effects of these facilities are encompassed by the discussion of the affected aboveground facility sites.

1.3 Background

This EA tiers to the *Final Environmental Impact Statement; TransColorado Gas Transmission Project, Colorado/New Mexico* (FEIS), initially issued for the TransColorado Interstate Pipeline System in July 1992 (BLM 1992). The BLM was the lead federal agency for that EIS. The U.S. Forest Service, the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers, the National Park Service, and the Commission were cooperating agencies. The Commission agreed with and adopted the findings in the FEIS, and in June 1994 issued a Certificate in Docket No. CP90-1777-000, as amended. The Certificate authorized TransColorado to construct and operate 292 miles of 22- and 24-inch diameter pipeline in Colorado and New Mexico, and two new compressor stations in Montrose and Dolores Counties, Colorado. TransColorado has applied to the BLM for an amendment to Right-of-way (ROW) Grant No. COC 62186, currently held by TransColorado. The Project facilities are adjacent to the facilities authorized in this existing ROW grant. The BLM's White River Field Office is the only BLM office with jurisdiction over this ROW grant.

1.4 Public Review and Comment

TransColorado's application was noticed on January 12, 2005. We received four motions of intervention, none of which raised environmental concerns.

On February 9, 2005, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the Proposed North Expansion Project and Request for Comments on Environmental Issues* (NOI). The NOI was mailed to individuals, organizations,

federal and state agency representatives, Native American tribes, county and local government agencies (including libraries), newspapers, elected officials, property owners within 1 mile of the proposed facilities, parties on the Commission's official service list for this proceeding, and other interested individuals. The NOI was published in the Federal Register on February 16, 2005, and solicited comments on environmental matters pertaining to TransColorado's proposal.

1.4 Permits, Approvals, and Regulatory Requirements

Project construction and operation would require various federal, state, and local permits in addition to a FERC Certificate. A list of permits and approvals is presented in Table 1.1.

Table 1.1 Currently Identified Permits and Approvals for the TransColorado North Expansion Project

| Agency | Description of Authorization or Approval |
|--|---|
| Federal Energy Regulatory Commission (FERC) | Issue Certificate of Public Convenience and Necessity |
| Bureau of Land Management | Issue ROW grant for compressor station, pipeline, and new meter facility |
| U.S. Fish and Wildlife Service (FWS) | Issue biological opinion or concurrence on threatened, endangered, proposed, and candidate species |
| Colorado State Historic Preservation Office (SHPO) | Issue archaeological clearance |
| Colorado Department of Public Health and Environment, Air Pollution Control Division | Issue Permit to Construct and Operate |
| Colorado Department of Public Health and Environment, Water Quality Control Division | Authorization to discharge storm water from construction activities |
| | Authorization for Minimal Wastewater Discharges from Industrial Facilities (MINDI) for hydrostatic test water and trench dewatering |
| Colorado Department of Transportation (CDOT) | Issue overweight truck permits for delivery of materials to site |
| Rio Blanco County | Issue Special Use Permit |
| Mesa County | Letter stating no permit required |

2.0 PROPOSED ACTION

2.1 Project Description

The North Expansion Project consists of the construction of a new Greasewood Compressor Station adjacent to the existing TransColorado Meter Station, a turbine meter for deliveries to Wyoming Interstate Gas Company, Ltd.³ (WIC), and pipelines necessary to connect these facilities (Figure 2.1) in Rio Blanco County. Should the WIC project not be built, TransColorado has indicated that its shipper has firm capacity rights on Colorado Interstate Gas (CIG), Questar Pipeline Company, and Northwest Pipeline Corporation pipelines which TransColorado could connect with to deliver the same capacity of gas. Also, the Project would replace existing meters at the Raccoon Hollow Meter Station in Mesa County (Figure 2.2). Specifically, TransColorado would:

- construct and operate a new Greasewood Compressor Station, in Rio Blanco County, Colorado, comprised of two 1,150 horsepower (hp) International Organization for Standardization-rated (ISO) compressor units and one 2,370 hp ISO-rated compressor unit;
- construct about 200 feet (ft) of 24-inch suction pipeline, a new meter station, and about 2,200 ft of 24-inch diameter pipeline on the discharge side to connect the compressor station and metering facilities, and one 12-inch bidirectional turbine meter;
- replace two existing 10-inch orifice meters with two new 12-inch turbine meters at the Raccoon Hollow Meter Station in Mesa County, Colorado; and
- construct and operate certain ancillary facilities entirely within the above-identified compressor station.

TransColorado proposes to install and place in service the two new 1,150-hp compressor units by January 1, 2006. The new 2,370-hp unit would be installed at the site and placed in service within 2 years of the construction of the initial units.

2.2 Land Requirements

The Project facilities at the Greasewood Hub would be located in Sections 5 and 8, T2S, R96W in Rio Blanco County, Colorado. All of these facilities are located on land managed by BLM. The facility located at the Raccoon Hollow Meter Station is on privately owned land in Sections 28 and 29, T8S, R97W, in Mesa county, Colorado. All work at this site would occur within the fenced area of the existing meter station. Total temporary disturbance would be an estimated 14.7 acres, with permanent new facilities occupying 5.8 acres (Table 2.1).

³ On January 24, 2005 WIC applied under Section 7(c) of the Natural Gas Act for authorization to construct and operate a 141.7 mile lateral pipeline, a 1,650 hp compressor, and metering facilities in Rio Blanco (Greasewood hub) and Moffat Counties, Colorado (Docket number CP05-54-000).

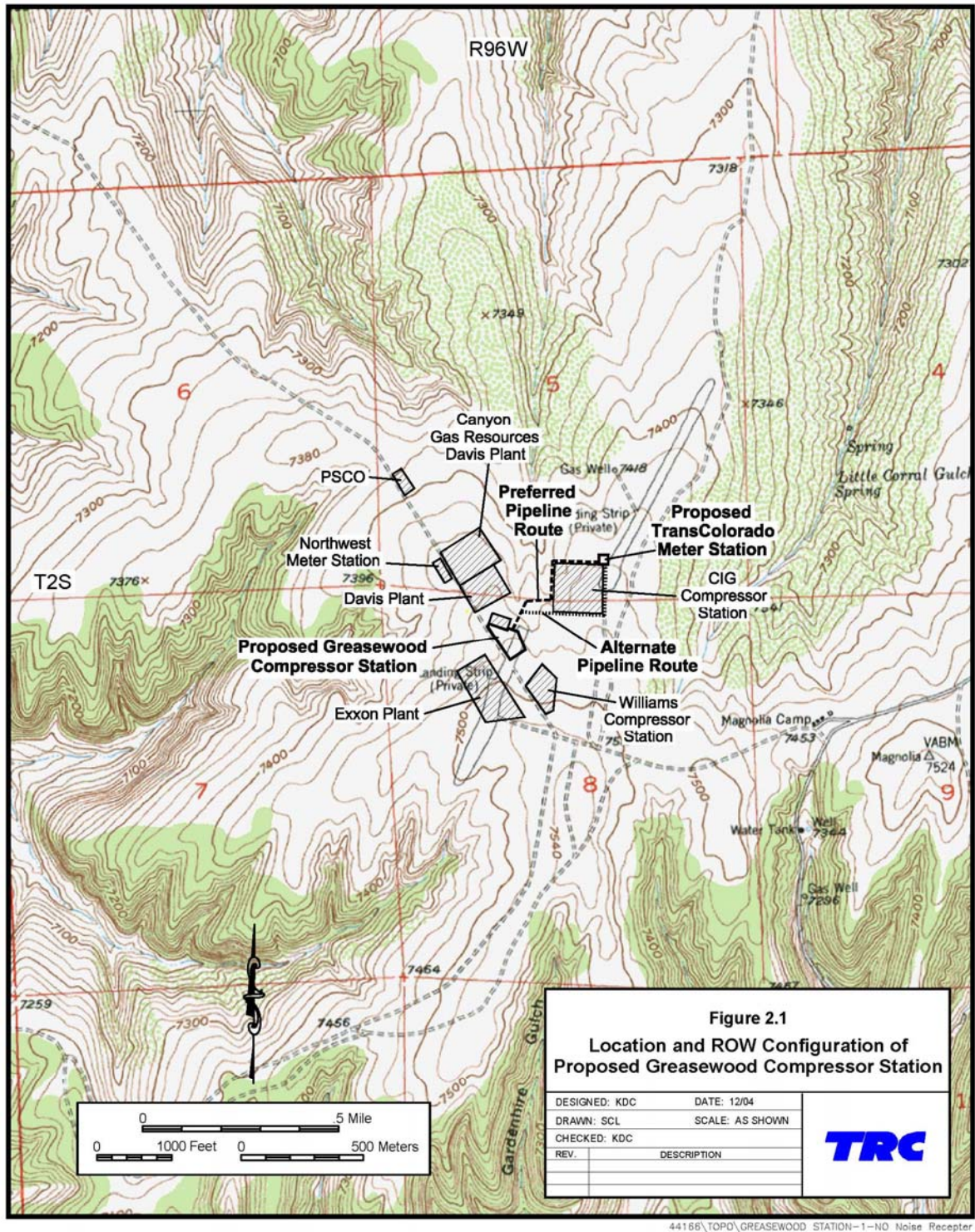


Figure 2.1 Location and ROW Configuration of Proposed Greasewood Compressor Station

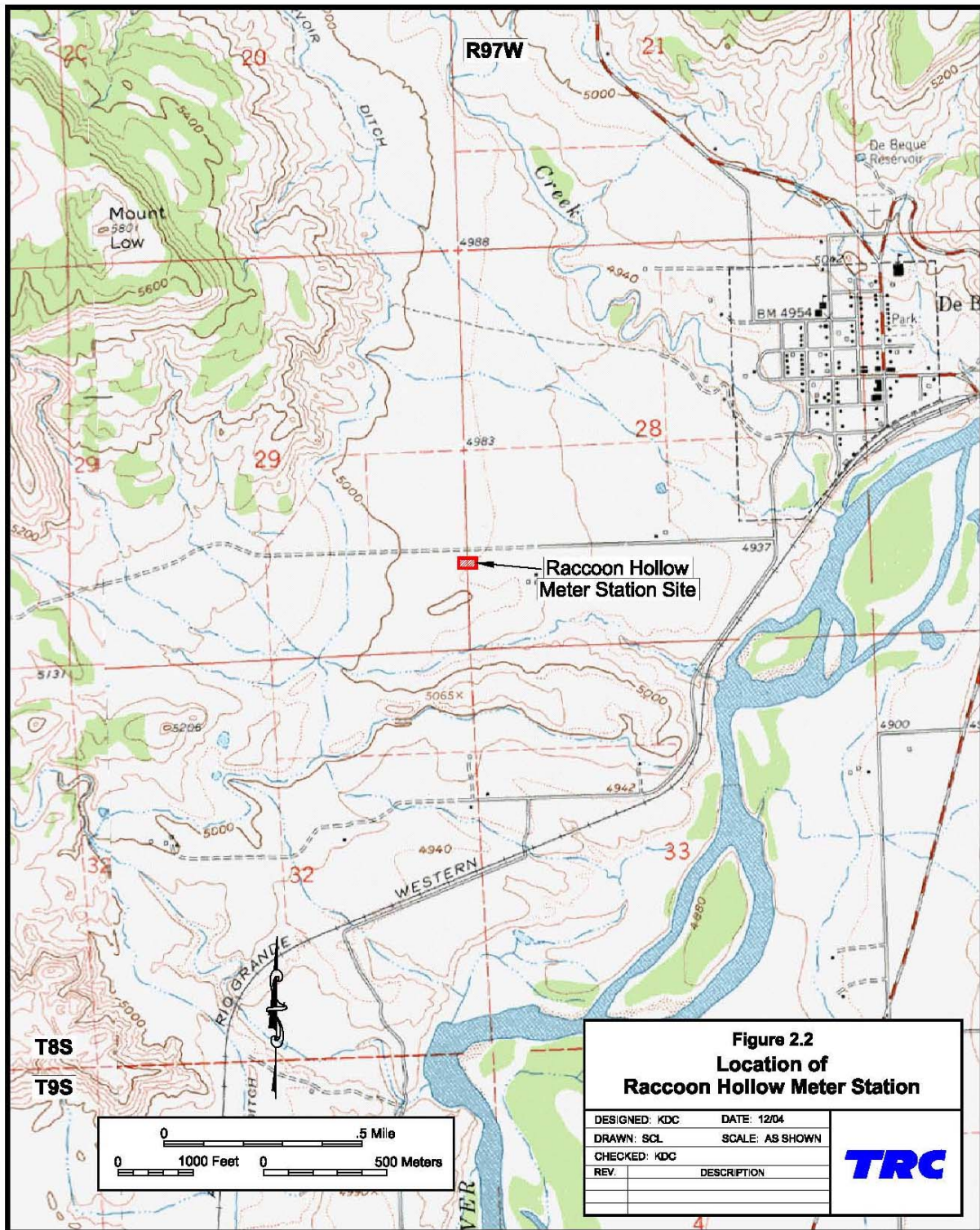


Figure 2.2 Raccoon Hollow Meter Station Site.

2.2.1 Pipeline Facilities

Construction of the discharge pipeline would result in a disturbance of approximately 5.0 acres, based on a 100-ft ROW. The permanent 50-ft ROW would occupy about 2.5 acres. To minimize potential impacts to the surrounding environment, the discharge pipeline would be placed as close as practical to other existing facilities.

2.2.2 Aboveground Facilities

The Greasewood Compressor Station, including the 200-ft 24-inch suction pipeline, would permanently occupy approximately 2.9 acres; the new meter station site and its driveway would occupy approximately 0.4 acre. The construction areas and extra workspace needed for construction of the compressor station, meter station, and discharge pipeline are shown on the ROW configuration drawing (Figure 2.1). The Greasewood Compressor Station has been configured to efficiently use land currently leased by TransColorado. To minimize potential impacts to the surrounding environment, the new meter station is located adjacent to and as close as practical to other existing facilities.

| Table 2.1 Land Use Impacts by Construction Area | | | | | | |
|---|--|---------|-------|----------------------------------|---------|-------|
| Facility | Construction-Existing Land Use (acres) | | | Permanent-Final Land Use (acres) | | |
| | Industrial | Grazing | Total | Industrial | Grazing | Total |
| Greasewood Hub | | | | | | |
| Compressor Station | 0.8 | 2.1 | 2.9 | 2.9 | 0 | 2.9 |
| Pipeline ROW ^a | 3.2 | 1.8 | 5.0 | 1.6 | 0.9 | 2.5 |
| Meter Facility with Driveway | 0.4 | 0 | 0.4 | 0.4 | 0 | 0.4 |
| Additional Work Areas | 0 | 6.4 | 6.4 | 0 | 0 | 0 |
| Raccoon Hollow ^b | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 4.4 | 10.3 | 14.7 | 4.9 | 0.9 | 5.8 |

^a Based on a construction ROW of 100 ft and a permanent ROW of 50 ft.

^b All construction at this site occurs within a pre-existing facility; therefore, no incremental impact would occur.

2.3 Construction Methods

Project facilities would be designed, constructed, operated, and maintained in accordance with the applicable requirements of 49 C.F.R. Part 192, Regulations for the Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards (U.S. Department of Transportation [U.S.DOT] regulations). In addition, Project design, construction, and operations would be required to meet all other applicable federal, state, and local laws, rules, and regulations. Construction of the station would be in conformance with industry standards as determined through engineering design. Engineering design would meet or exceed all applicable

requirements to ensure the safe and reliable operation of the station. TransColorado would conform to FERC siting and maintenance requirements at 18 C.F.R. § 380.15. There are no sensitive areas requiring special construction methods.

Each facility would be automated and would generally operate unattended. TransColorado's local operational personnel would perform routine checks of equipment, perform maintenance as required, and respond to any abnormal operations or problems with the existing and new facilities.

TransColorado proposes to begin construction of all of the facilities in June 2005. Construction of the compressor station, pipeline and metering facilities will occur simultaneously. Construction of the facilities is estimated to require a total work force of 15-35 workers for a period of approximately 90 days.

TransColorado would construct its facilities in accordance with the Upland Erosion Control, Revegetation, and Maintenance Plan, January 17, 2003, version (Plan), available for viewing on the FERC Internet Website at www.ferc.gov/industries/gas/enviro/guidelines.asp. TransColorado has not proposed any deviations or variances from the Plan.

TransColorado would hydrostatically test the pipeline and ancillary station piping before placing these facilities into service. Testing would be done in accordance with U.S.DOT regulations using typical hydrostatic testing procedures to ensure the facilities are capable of operating at design pressures. Should a leak or break occur during testing, the affected pipeline or piping would be repaired and retested until specifications are met.

All permanent facilities and temporary work areas, including temporary extra work spaces, would be surveyed and staked prior to beginning construction. Flagging would be used to mark the limits of construction areas, and all surface-disturbing activities would be restricted to that area. Clearing and grading of the permanent facilities and work area would be performed as necessary to provide safe working conditions. It is anticipated that most temporary extra work space areas would require clearing only. Topsoil would be salvaged from excavation areas for later restoration work.

All disturbed surface areas not permanently altered would be properly reclaimed, including spreading of any salvaged topsoil and reseeding using a BLM-approved seed mix. Areas required for operation would be graded. All surplus materials and construction debris would be removed.

No blasting activities are anticipated during construction of the proposed Project. In the unlikely event that blasting is necessary, TransColorado would seek authorization for and comply with all relevant federal, state and local requirements for such activities.

2.4 Operation and Maintenance

Operation and maintenance of the compressor station would occur in conformance with standard industry practices. The following standard procedures would be implemented.

- The station would be operated and maintained in accordance with the standard operation and maintenance procedures established by TransColorado to ensure the safe operation and integrity of its facilities. These procedures have been developed in accordance with the safety standards outlined in 49 C.F.R. Part 192 and other applicable regulations.
- Operation and maintenance of the station would be by existing qualified employees of TransColorado. These employees generally reside in the Meeker and Rangely, Colorado areas. Operation of the station is expected to necessitate one additional position, which would be filled from reassignment of existing personnel and/or a new hire meeting Operator Qualification requirements.
- The station would be unmanned and operated 24 hours per day.
- The station would be capable of being operated either locally or remotely from TransColorado's gas control facility in Lakewood, Colorado. Site-specific procedures would be developed to provide for the safe operation and maintenance of the new compressor units, and these procedures would supplement the general procedures in the Procedures Manual for Operations, Maintenance, and Emergency Response that would be prepared for this compressor station. These operating procedures would be revised as necessary throughout the life of the station.
- Field operations personnel would provide an on-site presence as required, supplemented by timely callouts. These personnel would operate the station, as well as perform routine inspection and maintenance in conformance with established procedures. A periodic maintenance and overhaul program would be accomplished by qualified service personnel to ensure safe and reliable operations.
- TransColorado would implement an Emergency Plan that would be utilized by TransColorado employees if an emergency occurs at the station. The plan for this station will be developed in accordance with applicable 49 C.F.R. Part 192 requirements, and will include established procedures to minimize the hazards of gas pipeline emergencies.

2.5 Future Plans and Abandonment

TransColorado does not foresee the need for future expansion at this time. The Project involves no abandonments. TransColorado states that because of long-term contracts and the developing nature of the gas basins from which the transported gas is obtained, it anticipates a long-term need for the Project. If and when abandonment of the proposed facilities would become appropriate, TransColorado would obtain and adhere to a new FERC Certificate approving the abandonment, as well as other applicable permits.

3.0 ENVIRONMENTAL ANALYSIS

3.1 Geology

3.1.1 Existing Resources

3.1.1.1 Geologic Setting

The Greasewood Hub portion of the Northern Expansion Project is located in northwestern Colorado in the Colorado Plateau physiographic province. The Roan Plateau and Skinner Ridge occur to the south of the Project area. The Project area is bounded on the south by Piceance Creek and to the west by Black Sulphur Creek, which both flow into the nearby White River, the major drainage in the region. The ridge system in this area is aligned north/south, and the Project area is on top of a high plateau where several ridge systems converge. Elevation within the Project area is approximately 7,480 ft.

The Raccoon Hollow Meter Station is located in west-central Colorado in the Colorado Plateau physiographic province. The site is located in the Roan Creek valley that continues to the north and is bounded on the west and east by low hills of the Roan Cliffs (e.g., Mount Low, 5,801 ft in elevation). To the south are numerous ephemeral channels that drain into the Colorado River. The site is flat, sloping gently to the east at an elevation of about 5,000 ft.

3.1.1.2 Mineral Resources

ExxonMobil holds all of the oil and gas leases in the Greasewood Hub area of the Piceance Creek Unit (personal communication, November 2004, with Penny Brown, BLM). Oil and gas production occurs in the Greasewood Hub area, but no wells are located within the Project area.

There are no planned or active surface mining activities located in the Project vicinity. Therefore, the Project would not impact surface mines or mine tailings along the ROW, or hinder mine reclamation or expansion efforts.

3.1.1.3 Geologic Hazards

No geologic hazards such as high seismicity, active faults, soil liquefaction, mining, karst topography, subsidence, slumping, or landslides occur in either portion of the Project area (personal communication, November 2004, with Paul Daggett, BLM White River Field Office) (BLM 1992, 1998). The Greasewood Hub is located on a ridge well above any surface waters; therefore, flood hazard is low. The Raccoon Hollow Meter Station is located outside the floodplains of Roan Creek and the Colorado River (Federal Emergency Management Agency 2004); therefore, flood hazard is low.

3.1.1.4 Paleontology

The Greasewood Hub site is located on the Uinta Formation, which is well known for containing vertebrate fossils. Federal regulations mandate the protection of significant paleontological resources on federally managed land, and any required stipulations would be included as part of the BLM's ROW grant issued for this Project.

The Raccoon Hollow Meter Station site is located on the Wasatch Formation. Because all work would occur within the previously disturbed fenced and graveled area within the existing meter station, paleontological resources would not be impacted by the Project at this site.

3.1.2 Construction/Operational Impacts

The purpose of the Project is to facilitate natural gas delivery to customers. Because of the number of aboveground gas processing, compression, and transmission facilities and underground pipelines in the vicinity, the small size of the Project, and the principal land uses in the area (gas compression and transmission), it is unlikely that the potential for development of other mineral resources would be impacted by the construction of the new compressor station and ancillary facilities.

No geologic hazards occur at either site. The Greasewood Hub has operated for over 50 years without incident. The Raccoon Hollow Meter Station has operated for 4 years without incident. The location and design of the Project present a minimum risk for adverse effects due to geologic hazards.

Excavation required for constructing foundations and installing pipelines is not likely to encounter bedrock, so paleontologic resources are not likely to be impacted. If bedrock is encountered during excavation, a qualified paleontologist would monitor operations during surface disturbing activities (BLM 1996). TransColorado states that it will provide training and environmental inspection to identify any paleontological resources discovered during construction.

3.1.3 Mitigation

No additional mitigation is proposed.

3.2 Soils

3.2.1 Existing Resources

Soils in the Greasewood Hub portion of the Project area belong to the Irigil-Parachute complex, 5-30 percent slopes, and the Irigil channery loam, 5-50 percent slopes (Tripp et al. 1982).

The Irigil-Parachute complex is located on mountainsides and ridges. Irigil soils are shallow and well-drained and formed in residuum derived from sandstone and hard shale. Parachute soils are deep and well drained and are formed in residuum derived from sandstone. Within the complex, permeability is moderate to rapid; effective rooting depth is 10 to 40 inches. Water erosion hazard is slight to high. The potential plant community is primarily beardless wheatgrass, western wheatgrass, serviceberry, big sagebrush, Idaho fescue, Letterman needlegrass, and Columbia needlegrass.

The Irigil channery loam is located on ridges and mountainsides. It is shallow and well-drained and formed in residuum derived from sandstone and hard shale. Permeability is moderate, and effective rooting depth is 10 to 20 inches. Water erosion hazard is very high. The potential plant community includes beardless wheatgrass, western wheatgrass, serviceberry, big sagebrush, and low rabbitbrush, with smaller amounts of prairie junegrass, bluegrass, and bitterbrush commonly present.

The pipeline intersects 1,653 ft (3.8 acres based on a 100 ft temporary ROW) of the Irigil-Parachute complex and 547 ft (1.2 acres) of the Irigil channery loam. The Greasewood Compressor Station (2.9 acres) occurs entirely on the Irigil-Parachute complex. The new meter station and its driveway (0.4 acre) occur entirely on the Irigil channery loam.

3.2.2 Construction/Operation Impacts

Potential impacts to soils from construction of the compressor station and associated facilities include increased erosion by wind and water, soil compaction from heavy equipment, and loss of soil productivity associated with mixing topsoil with subsoil. The potential for these impacts is relatively low at the Raccoon Hollow Meter Station site. None of the soils are classified as prime farmland. Construction would not affect croplands or residential areas where loss of soil fertility due to trenching and back-filling could occur. Construction/operation impacts by soil type are presented in Table 3.1. The work proposed at the Raccoon Hollow Meter Station would not involve any new soil disturbances.

| Table 3.1 Soils Impacts by Construction Area and Soil Type | | | | | | |
|--|--------------------------|----------------------|-------|--------------------------|----------------------|-------|
| Facility | Construction (acres) | | | Permanent (acres) | | |
| | Irigil-Parachute complex | Irigil channery loam | Total | Irigil-Parachute complex | Irigil channery loam | Total |
| Greasewood Hub | | | | | | |
| Compressor Station | 2.9 | 0 | 2.9 | 2.9 | 0 | 2.9 |
| Pipeline ROW ^a | 3.8 | 1.2 | 5.0 | 1.9 | 0.6 | 2.5 |
| Meter facility with driveway | 0 | 0.4 | 0.4 | 0 | 0.4 | 0.4 |
| Additional work areas | 6.4 | 0 | 6.4 | 0 | 0 | 0 |
| Raccoon Hollow ^b | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 13.1 | 1.6 | 14.7 | 4.8 | 1.0 | 5.8 |

^a Based on a construction ROW of 100 ft and a permanent ROW of 50 ft.

^b All construction at this site occurs within a pre-existing facility; therefore, no incremental impact occurs.

3.2.3 Mitigation

FERC staff, in collaboration with other federal and state agencies and the natural gas pipeline industry, has developed the Upland Erosion Control, Revegetation, and Maintenance Plan that minimizes the potential environmental impacts of pipeline construction projects in general. TransColorado has proposed to implement the Plan, without deviations. This includes such measures as erosion control and topsoil segregation (if applicable), limiting clearing only to that necessary for project construction, and reseedling according to landowner and/or agency recommendations. TransColorado would minimize impacts to soils by following construction measures in the Plan.

3.3 Water Resources

3.3.1 Ground Water

No surficial alluvial aquifers occur within the Project area (Trooper et al. 2003). The Uinta Formation, which is the only formation underlying the project area, is part of the Upper Piceance Basin aquifer. The aquifer yields 1 to 900 gallons/minute. The Upper Piceance Basin Aquifer is encountered at a depth of about 200 feet and is approximately 500 feet thick in the Greasewood Hub area. Therefore, the limited excavation depth associated with the Project would not affect ground water quantity or quality. There are no sole-source aquifers in the project area.

There are no public or private water supply wells, wellhead protection areas, or springs within 150 feet of any area to be disturbed by construction.

3.3.2 Surface Water

No surface waterbodies or wetlands occur at any of the construction sites. Therefore, no impacts to these resources are anticipated.

Because there are no surface waters in the construction areas, FERC's Wetland and Waterbody Construction and Mitigation Procedures do not apply. TransColorado would implement FERC's Plan to minimize erosion and prevent sediment migration to downstream areas, and a Storm Water Management Plan (SWMP) would be implemented for construction operations. The SWMP would include a Spill Prevention and Response Plan (SPRP) to minimize the potential for spills (e.g., fuels, lubricants) and resulting water contamination. Because of these measures adopted by TransColorado, impacts to water resources would be minimal.

3.3.3 Hydrostatic Test Waters

Any water used during construction would be trucked in by a contractor from a municipal or other permitted source. The only water required for construction would be water for hydrostatic testing of the pipelines and station piping. Approximately 53,000 gallons of water would be used for hydrostatic testing of the pipelines, and approximately 10,000 gallons would

be used to pressure-test the station. No chemicals would be added to the hydrostatic test water. After pressure testing is completed, all test water would be discharged onto the ground through an environmental filter bag and/or bale structure in compliance with a permit obtained from, and requirements established by, the Colorado Department of Public Health and Environment.

3.4 Vegetation

Vegetation at the Greasewood Hub is dominated by shrubs including big sagebrush (*Artemisia tridentata*), rabbitbrush (*Chrysothamnus* spp.), and serviceberry (*Symphoricarpos* spp.). Herbaceous vegetation in the area includes: snakeweed (*Xanthocephalum sarothrae*), cheatgrass (*Bromus tectorum*), curlycup gumweed (*Grindelia squarrosa*), common mullein (*Verbascum thapsus*), blue mustard (*Chorispora tenella*), and globemallow (*Sphaeralcea* spp.). The compressor station site is largely undisturbed and contains native vegetation, although it is within previously disturbed areas. The pipeline route and new meter site cross several other pipelines and thus are largely disturbed, with some reclamation and some weedy areas. Construction would result in the disturbance of about 14.7 acres of vegetation in the Greasewood Hub area. All but 5.8 acres would be reclaimed in accordance with FERC's Plan once construction is complete.

The Raccoon Hollow Meter Station is a fenced and graveled area maintained by TransColorado and contains minimal vegetation. Therefore, there would be no affect on vegetation as all work would occur within the existing facility.

No forested areas are in the vicinity of the project area.

3.5 Wildlife

The Project sites are located within industrialized areas with existing noise and human activity. The Greasewood Compressor Station is undisturbed shrubland/grassland and provides habitat for a variety of wildlife such as big game, carnivores, rabbits, small mammals, upland game birds, raptors, and passerines (Meaney 1990). The Greasewood discharge pipeline and the new meter station are located in similar habitat; however, much of those areas have previously been disturbed by other pipeline construction. The proposed project area provides season habitat for elk and mule deer (*Odocoileus hemionus*), but involved no habitats designated as critical by the Colorado Division of Wildlife. The area surrounding the Raccoon Hollow Meter Station is grassland used for livestock grazing and provides habitat for a variety of wildlife species.

Because of the current presence of industrial activity at the Greasewood Hub, wildlife may be habituated to, or tend to avoid the existing development, and the addition of the new facilities is not likely to further disturb wildlife. Construction noise and activity may cause temporary displacement of some wildlife at the new facilities, but no permanent displacement above and beyond that which has already occurred is expected.

TransColorado would reclaim all disturbed areas that are not required for operations using BLM-approved procedures. TransColorado would also install hospital-grade silencers on the compressor engines to mitigate operational noise levels from the compressor station.

Meter replacement at the Raccoon Hollow Meter Station would occur entirely within the fenced and graveled area of the existing meter station; therefore, no wildlife habitat would be affected. Work at the meter station may cause minor, temporary displacement of wildlife from the surrounding area. However, since the area is already used for ranching and gas transmission operations, impacts to wildlife would likely be negligible.

An aerial inventory for raptor nests including a 1.0-mile buffer was completed in November 2004 at both sites to document the presence or absence of raptor nests. A ground-based inventory of the immediate vicinity of each site was constructed on September 30, 2004, using binoculars and the naked eye to search for nests. No raptor nests were found within 1.0 mile of the Greasewood Project area or Raccoon Hollow Meter Station portions of the Project.

Raptors are likely to forage in the vicinity of the Project, and construction activities may interfere with such activity; however, impacts would likely be negligible and short-term. Because the area is already industrialized, operations at the new facilities would be similar to present operations in the area, and there would be no additional impacts to raptors.

The *Migratory Bird Treaty Act* (MBTA) of 1918 serves to protect migratory birds from deleterious impacts. Executive Order 13186 was enacted in 2001 to, among other things, ensure that environmental analyses of federal actions evaluated the effects of actions and agency plans on migratory birds. Most wild bird species that occur in the Project area are protected under the MBTA.

Construction of the Project could have direct and indirect effects on nesting birds. Direct effects, including mortality, would occur if shrub vegetation containing nests were removed. Indirect effects would be associated with noise and other construction activities close enough to active nests to disturb the birds and cause nest abandonment.

Construction effects on non-nesting birds would be minimal because the adults are mobile and would avoid direct effects due to construction. Nesting birds, including eggs and unfledged juveniles, would be vulnerable to direct and indirect construction effects. Much of the area potentially influenced by construction at the Greasewood site is comprised of recent brush beatings (fire-control features) and reclaimed rights-of-way, both of which are predominantly herbaceous in character. These early-seral shrubland communities characteristically sustain low density nesting by habitat generalists (e.g., western meadowlark, vesper sparrow) and provide virtually no sage-steppe habitat suitable for nesting by birds of higher conservation interest. The Greasewood compressor site would involve a 4-acre triangle of big sagebrush habitat that is bounded on all sides by industrial facilities or maintained access roads. Although these sagebrush canopies are suited for nesting by migratory birds of higher conservation interest (i.e., Brewer's sparrow), the utility of the site is compromised by these features. Because it is unlikely that more than 2 nesting efforts by birds of higher conservation interest would be disrupted by the proposed action, imposition of timing limitations to protect migratory bird nesting activities is not considered warranted.

Any structure associated with the compressor station that may serve as a perch (e.g., electric, telephone poles) should be as low in height as is safe and practical and constructed to effectively deter use by large raptors (i.e., eagles, buteo hawks, great horned owls). Federal regulations mandate the protection of raptors on federally managed land, and any required stipulations would be included as part of the BLM's ROW grant issued for this Project.

3.6 Threatened, Endangered, and Other Special Status Species

3.6.1 Federally Listed Species

TransColorado contacted the USFWS regarding potential and occupied habitats of listed species in within the project area. In addition, TransColorado conducted surveys to evaluate habitat that may support listed species.

According to TransColorado's research and correspondence with the USFWS, it was determined that 16 listed species may occur within the project counties. Habitat for 15 of those species was not present in the project area (Table 3.2). The only federally listed T&E animal species that may occur in the Project area (i.e., both the new compressor station and associated facilities and the Raccoon Hollow Meter Station) is the bald eagle, which may occasionally forage in both areas. No bald eagle nesting or roosting habitat occurs at or near either site, and no bald eagles were observed during the field surveys. Construction and an increase in noise levels from the new compressor station are unlikely to affect the bald eagle due to the existing industrial nature of the Project area. Because there would be no substantive change in type of long term activities at the Project site, operation of the facilities would not affect bald eagles.

Table 3.2
Federally Listed T&E Species Known to Occur or Possibly
Occurring in Rio Blanco and Mesa Counties, Colorado, 2004.a

| Species | Habitat/Occurrence | Potential to Occur at Project Construction Sites |
|---|--|--|
| Bald eagle (both counties) | Occurs throughout the state | Occasionally flies through |
| Black-footed ferret (Rio Blanco County) | Prairie dog colonies | None |
| Bonytail (both counties) ^b | Colorado and Green Rivers | None |
| Boreal toad (both counties) | Moist montane areas | None |
| Canada lynx (both counties) | Montane coniferous forests | None |
| Colorado pikeminnow ^c (both counties) | Green and Colorado Rivers | None |
| DeBeque phacelia (Mesa County) | Sparsely vegetated slopes on Atwell Gulch and Shire members of the Wasatch formation | None |
| Dudley Bluffs bladderpod (Rio Blanco County) | White shale outcrops of the Green River and Uinta Formations exposed along drainages through headcutting; 6,000-6,700 feet in elevation | None |

| | | |
|--|--|------|
| Graham penstemon (Rio Blanco County) | Talus slopes and knolls of Green River Formation shales in sparsely vegetated desert shrub and pinyon-juniper communities; 5,800-6,000 feet in elevation | None |
| Gunnison sage-grouse ^d (Mesa County) | Sagebrush shrublands | None |
| Humpback chub (both counties) ^b | Green and Colorado Rivers | None |
| Piceance twinpod (Rio Blanco County) | Shale outcrops of the Green River Formation, on ledges and slopes of canyons in open areas; 6,200-8,600 feet in elevation | None |
| Razorback sucker ^b (both counties) | Green and Colorado Rivers | None |
| Uinta Basin hookless cactus (Mesa County) | Rocky hills, mesa slopes, and alluvial benches in desert shrub communities | None |
| White River penstemon (Rio Blanco County) | Mixed desert shrub and pinyon-juniper communities on sparsely vegetated shale slopes of the Green River Formation; 5,000-7,200 feet in elevation | None |
| Yellow-billed cuckoo (both counties) | Willow and deciduous tree communities in riparian areas | None |

^a Source: USFWS (2004).

^b Critical habitat is identified in Mesa County for this species.

^c Critical habitat is identified in Mesa and Rio Blanco Counties for this species.

^d Gunnison sage-grouse is listed as potentially occurring in Mesa County, but no potential habitat occurs at or immediately adjacent to the Raccoon Hollow Meter Station site.

Prairie dog colonies are preferred habitat for black-footed ferrets. About 10 open burrows were present at the North Expansion at the Greasewood Hub, and they were generally greater than 7 cm in diameter and may be prairie dog burrows. No prairie dogs were observed, so a positive species determination could not be made. The burrows were confined to a relatively small area, and none were observed in adjacent areas, so the cluster of burrows appears to be isolated and not part of a larger colony. Given the low number of burrows and the industrial nature of the area, it is unlikely that black-footed ferrets occupy the site.

The North Expansion at the Greasewood Hub is located on a relatively stable slope on the Uinta Formation, so it is not potential habitat for Dudley Bluffs bladderpod, Piceance twinpod, Graham penstemon, or White River penstemon. Although the DeBeque phacelia and Uinta Basin hookless cactus may occur in the vicinity of the Raccoon Hollow Meter Station, they do not occur within the existing fenced area where Project activities would occur.

In a letter from the USFWS dated November 19, 2004, the USFWS determined that there would be “no effect” to federally listed species in Rio Blanco County, Colorado. In an email from the USFWS on January 27, 2005, it was noted that the “no effect” clearance letter sent on November 19, 2004 also applied to Mesa County. An additional letter was received on March 11, 2005, from the USFWS listing endangered species that may be present within the project area. This letter was sent in response to the NOI. The USFWS clarified in a call on March 18, 2005, that the letter sent on November 19, 2004 did give clearance for the project area and no further review is necessary. FERC staff concurs.

3.6.2 State-listed Threatened, Endangered, and Candidate (T&E) Species

A list of state T&E species that potentially occur in the Project area is provided in Table 3.3. No habitat is present at or adjacent to Project construction areas for the state's T&E fish and mollusk species or for the state's T&E reptiles (except garter snake) or amphibians. Common garter snake may occur in the roadside ditches in the vicinity of the Greasewood Hub and Raccoon Hollow Meter Station. Because the disturbance area would be small and because snakes are fairly mobile, no significant impacts to common garter snakes are anticipated.

Of the state-listed birds and mammals, only eight species may potentially occur on-site. Sandhill cranes, ferruginous hawks, and peregrine falcons may occasionally fly over either site; however, neither site contains potential nesting habitat for any of these species, and while ferruginous hawks and peregrine falcons may forage opportunistically in these areas, no foraging habitat for sandhill cranes is present. Ferruginous hawk nesting habitat does not occur within 1.0 mile of either site. No raptor nests were noted during a ground-based inventory in the immediate vicinity of each site in September 2004, nor during an aerial inventory completed in November 2004.

No impacts are expected to sandhill cranes, ferruginous hawks, or peregrine falcons because none of the sites contains potential nesting habitat for these species. The limited construction area is not expected to affect any opportunistic foraging activities that ferruginous hawks and peregrine falcons may perform in the Project area.

An active greater sage-grouse lek occurs approximately 1.25 mi from the Greasewood Hub. This species is described in greater detail in Section 3.6.3 BLM-Sensitive Species.

The area surrounding the Raccoon Hollow Meter Station site contains potential habitat for Columbian sharp-tailed grouse, but no leks are known to occur within 2.0 miles of the site. Columbian sharp-tailed grouse are unlikely to be affected by construction or operation. If leks occur within 2.0 miles of the site, construction activities during the breeding and nesting season could adversely affect breeding and nesting birds. For example, construction noise may inhibit initiation of breeding and/or decrease breeding success, and human activity may displace birds from preferred habitat, thereby decreasing productivity or causing hens to abandon nests, resulting in egg or chick mortality. Increased vehicular traffic could increase the potential for grouse mortality from collisions with vehicles. Because the construction period would be short, involving only limited equipment and vehicles, impacts to Columbian sharp-tailed grouse would be minimal, and no additional mitigation would be necessary. Another company operates a large meter station less than 0.5 mile west of the Raccoon Hollow Meter Station, so any sharp-tailed grouse using the area are likely to be habituated to this type of activity.

Townsend's big-eared bat may occasionally fly over either site; however, no potential roosting habitat occurs near the sites. Although Townsend's big-eared bat would roost in buildings, the buildings within the Greasewood Hub are large, industrial, and noisy (with the exception of a couple of mobile homes) and would be unattractive roost areas. Townsend's big-eared bat would be a rare visitor to either site, and would not be affected by the Project.

Table 3.3
State-listed T&E Species.^a

| Species | Habitat | Potential to Occur at the Compressor Station or Meter Station Sites |
|--------------------------------|--|---|
| Fish | | |
| Greenback cutthroat trout | South Platte River and its tributaries | None |
| Rio Grande sucker | Rio Grande basin | None |
| Lake chub | Front Range and transition zone between montane and eastern plains habitat, South Platte basin | None |
| Plains minnow | Stream and river habitats in the eastern plains of Colorado, South Platte basin | None |
| Suckermouth minnow | Clear riffles with sand or gravel substrate but sometimes in lakes, South Platte basin | None |
| Northern redbelly dace | Front Range and transition zone between montane and eastern plains habitat, South Platte basin, West Plum Creek, Saint Vrain Creek | None |
| Southern redbelly dace | Front Range and transition zone between montane and eastern plains habitat, South Platte basin | None |
| Brassy minnow | Streams and river habitats of eastern plains and South Platte basin | None |
| Common shiner | Front Range and transition zone between montane and eastern plains habitat, South Platte basin | None |
| Arkansas darter | Streams and river habitats of eastern plains and South Platte basin | None |
| Mountain sucker | Smaller rivers and streams with gravel, sand, and mud bottoms | None |
| Plains orangethroat darter | Small streams with sand or gravel bottoms, including intermittent streams, but may also be found in small lakes | None |
| Iowa darter | Clear sluggish or standing water with vegetation | None |
| Rio Grande chub | Pools of small to moderate streams near areas of current and in association with undercut banks, overhanging bank vegetation, and aquatic plants | None |
| Colorado roundtail chub | Colorado River basin | |
| Stonecat | Areas of good current in streams and rivers, and may be found in rock gravel-covered bays | None |
| Colorado River cutthroat trout | Colorado River basin | |
| Rio Grande cutthroat trout | Clear cold water, naturally fluctuating flows, low levels of fine sediment in channel bottoms, well-distributed pools, stable streambanks, and abundant stream cover | |
| Flathead chub | Large and small plains streams with turbidity | None |

Table 3.3
State-listed T&E Species.^a

| Species | Habitat | Potential to Occur at the Compressor Station or Meter Station Sites |
|-------------------------------|--|---|
| Amphibians | | |
| Northern cricket frog | Shortgrass plains of eastern Colorado along rivers | None |
| Great Plains narrowmouth toad | Damp burrows, crevices, under rocks, bark, and boards in the vicinity of streams, springs, and rain pools | None |
| Northern leopard frog | Near permanent water in areas up to about 9,000 feet; lower-elevation sites are usually swampy cattail marshes and higher sites tend to be beaver ponds | None |
| Wood frog | Ponds, lakes, and slow-moving streams at higher elevations (usually over 8,500 feet), often in the vicinity of conifer forests | None |
| Plains leopard frog | Arid regions of plains and prairies near shallow streams and ponds | None |
| Couches spadefoot | Shortgrass plains, mesquite savanna, creosote bush desert, other areas of low rainfall | None |
| Reptiles | | |
| Triploid checkered whiptail | Hillsides, arroyos, canyons, shrubby areas, roadsides, and transition areas near the Arkansas, Huerfana, Apishapa, and Purgatoire Rivers and tributaries | None |
| Midget faded rattlesnake | Rocky arid areas up to 8,000 feet in elevation | None |
| Longnose leopard lizard | Arid and semiarid plains with bunchgrass, alkalibush, creosote bush, or other scattered low plants | None |
| Yellow mud turtle | Highly aquatic turtle of semiarid grasslands and open woodlands, frequenting both permanent and intermittent streams | None |
| Common kingsnake | Deserts, riparian areas, woodlands, forests, and farmland from sea level to 7,000 feet | None |
| Texas blind snake | Rocky hillsides with patches of loose soil and canyon bottoms or washes near permanent or intermittent streams | None |
| Texas horned lizard | Arid and semiarid open country with sparse plant growth of bunchgrasses, cactus, juniper, acacia, and mesquite | None |
| Roundtail horned lizard | Sandy or gravelly soils of plains, desert flats and washes in arid or semiarid habitats with cedar, ocotillo, oak, mesquite, creosote bush, or sumac | None |
| Massasauga | River bottoms, wet prairies, swamps, bogs, and woodlands | None |
| Common garter snake | Ponds, marshes, prairie swales, roadside ditches, streams, sloughs, damp meadows, woods, farms, and city lots | Potential |
| Mollusks | | |
| Rocky Mountain capshell | Aquatic or riparian habitat in montane areas | None |

Table 3.3
State-listed T&E Species.^a

| Species | Habitat | Potential to Occur at the Compressor Station or Meter Station Sites |
|-------------------------------|--|---|
| Cylindrical papershell | Mud and sands of small creeks and headwaters of large streams, upper Mississippi River basin | None |
| Birds | | |
| Plains sharp-tailed grouse | Douglas County | None |
| Burrowing owl | Plains and basins, often associated with prairie dog colonies | None |
| Sandhill crane | Mud flats around reservoirs, most meadows, and agricultural areas, parks with grassy hummocks and watercourses, beaver ponds, and natural ponds lined with willow or aspen, wetlands, and shallow marshes | Potential to fly over both sites during migration; no potential breeding, nesting, or foraging habitat at either site |
| Ferruginous hawk | Open grasslands and shrublands | Potential to fly over both sites; no nesting habitat present at either site |
| Peregrine falcon | Mountainous zones or cliffs near large lakes and rivers | Potential to fly over both sites; no nesting habitat present at either site |
| Greater sage-grouse | Sagebrush basins and foothills, generally close to water | Potential for occasional transient use throughout the year; historic lek within 1.25 mi |
| Mountain plover | Sparse shortgrass or mixed grass prairie; short sagebrush plains; often associated with prairie dog colonies | None |
| Long-billed curlew | Meadows, pastures, shoreline, and marshes | None |
| Columbian sharp-tailed grouse | Grasslands | Potential to occur adjacent to Raccoon Hollow Meter Station |
| Mammals | | |
| Wolverine | High elevations with heavy timber | None |
| River otter | Upper Colorado River, Dolores River, and upper Platte River | None |
| Kit fox | Semi-desert shrublands from Montrose to Grand Junction; sparsely vegetated shrublands of saltbush, shadscale, and greasewood | None |
| Townsend's big-eared bat | Hibernates and day-roosts in caves and mines and would use buildings as day roost; typical habitat includes desert shrublands, pinyon-juniper woodlands, and dry conifer forests, generally near riparian or wetland areas | Potential to fly through both sites, but no preferred roosting habitat at either site |
| Black-tailed prairie dog | Shortgrass prairie, usually with loose, sandy soils; can form large, dense colonies | None |

Table 3.3
State-listed T&E Species.^a

| Species | Habitat | Potential to Occur at the Compressor Station or Meter Station Sites |
|------------------------|---|---|
| Botta's pocket gopher | Southwestern Colorado | None |
| Northern pocket gopher | Meadows and along streams | None |
| Swift fox | Shortgrass prairie, but can be found in sagebrush-grasslands, especially in sparsely vegetated areas such as prairie dog colonies | None |

a Excludes federal T&E species (e.g., Gunnison sage-grouse, yellow-billed cuckoo) that are also state-listed species. Sources: Bailey and Niedrach (1965), Stebbins (1966), CDOW (2004), and CNHP (2004).

Black-tailed prairie dogs are unlikely to occur at the Project sites. About 10 open burrows were present at the North Expansion at the Greasewood Hub. Burrow openings were generally greater than 7 cm in diameter, so they may be prairie dog burrows, but no prairie dogs were observed to allow a positive species identification. Both sites are out of black-tailed prairie dog range, so if these are prairie dog burrows they would belong to white-tailed prairie dogs.

3.6.3 BLM-Sensitive Species

The only BLM-sensitive animal species potentially present in the Greasewood Hub area is greater sage-grouse. The BLM has expressed concern that the Project could affect the long-term utility of greater sage-grouse habitats in the Magnolia area by; further constricting the amount and continuity of sage-steppe habitat that is available for southwest-to-northeast movements; adding incrementally to noise generated from the Magnolia complex that may adversely influence the birds' reproductive activities (e.g., lekking, nesting); and creating additional perches from which raptors could prey on grouse or disrupt grouse reproductive activities. The facilities to be constructed for the North Expansion Project are immediately adjacent to existing facilities. Facility fencing would effect a long-term, but minor (about 150') constriction in a narrow corridor of habitat that is capable of supporting transient use by sage-grouse. Sagebrush clearing in the temporary use area south of the proposed compressor site may substantially reduce the likelihood of grouse moving through this area in the short term, but with land use provisions (i.e., minimizing the clearing of sagebrush canopies) and directed reclamation (i.e., grouse-oriented seed mix, redistribution of cleared woody material, and fencing) it is expected that herbaceous vegetation would be capable of providing surrogate cover until development of an effective sagebrush canopy (5-10 years). Prevailing noise levels attributable to 6 existing compressor stations within the Greasewood Hub are largely industrial. Noise modeling indicates that this facility would contribute about 0.5 decibel to noise levels currently emanating from the Magnolia compressor complex. The additional noise generated by the proposed North Expansion Project is not expected to adversely influence greater sage-grouse distribution or reproduction. TransColorado would use silencers on the compressor station engines and electric power generators to minimize increases in noise levels.

The Colorado National Heritage Program (CNHP) database query results listed Great Basin spadefoot (a BLM-sensitive species) as occurring in the Greasewood Gulch quadrangle. Only limited potential habitat for Great Basin spadefoot (sagebrush flats) occurs on-site, so it is unlikely that this species would be impacted by the Project.

No BLM-sensitive plant species are known to occur in the North Expansion at the Greasewood Hub, and no additional surveys are required.

The Raccoon Hollow site is located on previously disturbed privately owned land; therefore, no impacts to BLM-sensitive species would occur.

3.6.4 Special Status Species Mitigation

Any structure associated with the compressor station that may serve as an elevated perch (e.g., communication towers, electric distribution or telephone poles) should be as low in height as is safe and practical and constructed or fitted with features that effectively precludes electrocution of, and deters use by large raptors (i.e., eagles, buteo hawks, great horned owls).

TransColorado would install hospital-grade exhaust silencers on its new compressor engines and orient compressor station components so as to direct noise northward in so far as is reasonable and feasible (personal communication with Paul Geyer, TransColorado).

TransColorado should minimize as much as practical the need for land leveling and/or clearing of sagebrush canopies from the interior of the temporary work area south of the proposed Greasewood compressor station. If sagebrush cover is bladed, cleared woody material would be redistributed evenly across the reclaimed areas after seeding. Apply full rehabilitation practices on the temporary use area after initial construction unless the Authorized officer approves deferment for imminent installation of the third compressor unit.

BLM would require TransColorado to construct and effectively maintain a 4-strand barbed wire fence with braced wooden corners (built to BLM “type-D” specification) to exclude livestock from the reclaimed temporary work area south of the proposed Greasewood compressor station. This fence would be maintained by the applicant until a minimally effective sagebrush canopy (i.e., 15%) has redeveloped, after which time, the BLM would be responsible for its maintenance. This site would be reseeded by broadcasting and harrowing the BLM-specified seed mix (below) at double the stated rate.

SPECIES (VARIETY)/LBS. PURE LIVE SEED/ACRE

Western Wheatgrass (Rosanna)/2

Bluebunch wheatgrass (Secar)/2

Thickspike wheatgrass (Critana)/2

Indian ricegrass (Nezpar)/1

Utah sweetvetch/1

Arrowleaf balsamroot/1

Lewis flax/0.5

Rocky Mountain penstemon/0.25

3.7 Cultural Resources

Section 106 of the NHPA, as amended, requires the FERC to consider the effects of its undertakings (including the issuance of Certificates) on any properties that are listed on or eligible for inclusion in the NRHP and to afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. As the applicant, TransColorado has gathered information to assist us in complying with Section 106, in accordance with the ACHP's regulations in 36 CFR Part 800.

The proposed modifications at the Raccoon Hollow Meter Station would occur within the fenced and graveled area of the existing meter station, and this disturbed area had previously undergone a cultural resources review.

The BLM forwarded its assessment that the Project would not impact any archaeological sites or other historic properties to the Colorado SHPO. The Colorado SHPO concurred with the BLM on November 2, 2004. We also concur.

TransColorado filed an acceptable Unanticipated Discoveries Plan.

Native American Consultation

A letter was sent to 98 addresses provided by the Colorado SHPO for the purposes of Native American consultation. To date, six responses have been received. The Sandia Pueblo, Jicarilla Apache Nation, Pueblo of Laguna (2 responses) and Jemez Pueblo responded that they have no concerns regarding the Project. The Cheyenne River Sioux requested and were provided a copy of the cultural resource inventory report. None of the respondents expressed concerns about Project impacts to Native American religious or cultural sites; therefore, an ethnographic study was not conducted. Follow-up notifications were initiated by TransColorado with tribes that did not respond to the initial letter. No additional comments have been received.

3.8 Land Use, Recreation, and Visual Resources

3.8.1 Land Use

3.8.1.1 Existing Resources

The land upon which the proposed compressor station and associated facilities would be constructed includes 14.7 acres to be disturbed during construction (Table 2.1). Permanent disturbance, including the 50-ft new permanent pipeline ROW, would be 5.8 acres. The principal land use at the Greasewood Hub is industrial related to gas compression and transmission and oil and gas production. Land use of the general area would not change.

Pipeline Facilities.

The construction ROW would be 100 ft wide, and the permanent ROW would be 50 ft wide. The construction ROW would be reclaimed with native species. There is no significant

portion of the pipeline that utilizes an existing ROW. However, the new pipeline ROW is located as near as possible to several existing pipelines.

Special Management Areas.

The Project does not propose to cross or be within 0.25 mi of an area included in, or designated for study for inclusion in the National Wild and Scenic Rivers System, the National Trails System, or a wilderness area designated under the Wilderness Act. The Project is not located within a designated coastal zone management area.

Extra Work/Staging Areas.

Extra work and/or staging areas are required at the new Greasewood Compressor Station and new meter station sites (6.4 acres) and along the proposed pipeline ROW (2.5 acres).

Access Roads.

No new access roads would be required for the compressor station or pipeline. A existing 25-ft driveway would be used for the new meter station.

Pipe and Contractor Yards.

No additional area is required for pipe or contractor yards.

Aboveground Facilities.

The Greasewood Compressor Station has been configured to efficiently use land currently leased by TransColorado. To minimize potential impacts to the surrounding environment, the new meter station is located as near as practical to other existing facilities (see Figure 2.1). The new aboveground facilities would be maintained for light industrial use, whereas the remaining acreage would be reclaimed with native plant species.

3.8.1.2 Construction/Operation Impacts

Land use of the general area would not change, although land use at the compressor station site would change from native rangeland to gas compression and transmission on the 5.8 acres of new permanent ROW. There would be no affect on the land use at Raccoon Hollow Meter Station. No facilities would be abandoned.

3.8.1.3 Mitigation

No additional mitigation is proposed

3.8.2 Residential Areas

3.8.2.1 Existing Resources

Planned Residential and Commercial Areas.

There are no planned residential or business/ commercial developments within 0.25 mi of any Project construction area.

Existing Residences and Buildings.

There are no residences within 50 ft of any construction area. One temporary residence occurs about 0.3 mi northwest of the compressor station site. It is used by employees of the Greasewood Hub's operators on a temporary, as-needed basis. The nearest residence to the Raccoon Hollow Meter Station is over 0.5 mi to the west. The other facilities that occur in the area are shown on Figure 2.1.

3.8.2.2 Construction/Operational Impacts

Because no residences occur near either the Greasewood Compressor Station or the Raccoon Hollow Meter Station, the Project would not impact residential land use.

3.8.2.3 Mitigation

No additional mitigation is proposed.

3.8.3 Public Land, Recreation, and other Designated Areas

3.8.3.1 Existing Resources

Public or Conservation Land.

Land at the compressor station site is publicly owned and managed by BLM, and TransColorado has applied for a ROW amendment to obtain authorization for use of the land. The land at the Raccoon Hollow Meter Station is owned by Getty Oil Exploration Company. There are no other lands administered by other federal, state, or local agencies, or private conservation organizations within 0.25 mi of the Project.

Natural, Recreational or Scenic Areas.

The Greasewood Hub portion of the Project area occurs within the White River Extensive Recreation Management Area (ERMA) (BLM 2004). BLM manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing, and off-highway vehicle use. Opportunities for recreation in the Project area are limited because of the industrial nature of the area. There are no developed recreational sites or wilderness areas, nor are any designated or proposed natural or scenic areas, registered natural

landmarks, National or State Wild and Scenic Rivers National Trails or wilderness areas crossed by or within 0.25 mi of the Project. The landscape in the vicinity of the station has been disturbed by paved and unpaved roads, natural gas pipelines, compressor stations, meter stations, and oil and gas development, and no sensitive view points are present. Existing roads may be used by off-road-vehicle enthusiasts, but given the industrial nature of the area it is unlikely that it is used for hunting, camping, hiking, or other recreational activities. Facilities would be compatible with the industrial nature of the area.

Other adjacent land uses include recreation, livestock grazing, and wildlife habitat. No national or state forests, conservation lands, specialty crops, natural lands, or other special land uses occur within 0.25 mi of the Project.

Agency and Landowner Consultation.

Consultations with the BLM document all necessary landowner and agency consultations required regarding land use.

3.8.3.2 Construction/Operational Impacts

The public would lose approximately 5.8 acres of land for dispersed recreational potential while the compressor station is in operation. The public would most likely not recreate in the vicinity and would be dispersed elsewhere. The area is already inundated with industrial facilities so the likelihood that recreationists would be impacted is low as most have dispersed from the area due to past development.

3.8.3.3 Mitigation

No additional mitigation is proposed.

3.8.4 Visual Resources

3.8.4.1 Existing Resources

The setting at the Greasewood Hub is atop a plateau (see Section 3.1). The compressor station site is surrounded by other natural gas compression, treatment and metering facilities. The proposed compressor station, pipeline and meter station would not be visible from any permanent residences or highways. There are no scenic areas or registered landmarks within 0.25 mi of the Project.

The compressor station site is located on land managed by the BLM. The BLM has developed a system for mapping visual resources to manage the quality of the visual environment and to incorporate visual resources in land management decisions. The Visual Resource Management (VRM) system incorporates factors such as scenic quality, distance zones, and sensitivity levels to delineate VRM Classes. VRM classes range from Class I to Class IV, with Class I being the higher quality/sensitive areas and Class IV being less sensitive to changes in visual quality.

3.8.4.2 Construction/Operational Impacts

The proposed Greasewood Compressor Station site is within a VRM Class III area which allows for change in the landscape so long as changes repeat the basic form, line, color, and texture of the existing landscape. The proposed Project would be in conformance with VRM Class III objectives. The site does not have any high quality or unique scenic features.

Visually, the Raccoon Hollow Meter Station would not change as a result of the Project because all work would be completed within the existing fenced meter station.

3.8.4.3 Mitigation

The new structures would be painted a non-reflective earth tone color so as not to stand out visually. Final color specifications for the Greasewood Compressor Station would be stipulated in the BLM ROW grant.

3.9 Air Quality

Air quality can be affected by both pipeline construction and operation of compressor stations. TransColorado proposes to construct a new compressor station comprised of three compressor units, a new meter station, and 2,200 feet of pipeline in Rio Blanco County, Colorado, and replace two meters at the Raccoon Hollow Meter Station in Mesa County Colorado. The meter station replacement would not have a significant impact on the air quality and therefore will not be discussed further in this section.

During operation the compressor station would emit varying quantities of regulated air pollutants, including nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM) less than 10 microns in diameter (PM₁₀), volatile organic compounds (VOCs), and sulfur dioxide (SO₂). Of these, the pollutants emitted in greatest quantities would be CO and NO_x, the primary component of which is NO₂. Emissions of hydrocarbons, a type of VOC, would be proportional to the amount of sulfur in the fuel. Because the fuel would be natural gas containing very little sulfur, the amount of SO₂ emitted would be very low. The focus of the analysis, therefore, is on NO_x emissions and CO emissions.

Ambient air quality is protected by federal and state regulations. For the North Expansion Project, the applicable air quality permitted authority is the Colorado Department of Public Health and the Environment (CDPHE). This agency manages statewide air permitting, compliance, and enforcement, as well as the Clean Air Act (CAA) Title V Operational Permit Program and permits under the Federal CAA Prevention of Significant Deterioration (PSD) program. Monitored background ambient air pollutant concentrations are compared to national and Colorado ambient Air Quality Standards (NAAQS/CAAQS) in Table 3.4. As is shown, Rio Blanco County is in attainment for all criteria air pollutants.

| Table 3.4 Regional Background Air Pollutant Concentrations ^a | | | | |
|---|------------------|---|----------------------------|----------------------------|
| Pollutant | Averaging Period | Monitored Background Concentration (µg/m ³) | NAAQS (µg/m ³) | CAAQS (µg/m ³) |
| NO ₂ | Annual | 7.5 | 100 | 100 |
| CO | 1-hour | 3,429 | 40,000 | 40,000 |
| | 8-hour | 2,286 | 10,000 | 10,000 |
| SO ₂ | 3-hour | 21 | 1,300 | 700 |
| | 24-hour | 13 | 365 | 365 |
| | Annual | 5 | 80 | 80 |
| PM ₁₀ | 24-hour | 28 | 150 | 150 |
| | Annual | 10 | 50 | 50 |

^a Source: CDPHE (2004).

The regulations under the federal PSD program are intended to preserve the existing air quality in areas where pollutant levels are below the NAAQS for regulated air pollutants. PSD regulations impose specific limits on the amount of pollutants that major new or modified stationary sources may contribute to existing air quality levels. These limits are 250 tons per year (tpy) of a criteria PSD-regulated pollutant for pipeline compressor stations. Under the PSD Program, Class I areas are assigned to protect certain federal wilderness areas, such as national parks, where the least amount of air quality deterioration is allowed. There are no special-status (class I) areas near the proposed compressor station with the exception of Flat Tops Wilderness Area, located about 35 miles from the Project area.

Emissions resulting from TransColorado's proposed Project would not reach the significant levels requiring PSD review and no New Source Performance Standards (NSPS) apply to this facility. The Project is defined as a PSD minor source and is subject to the permit requirements of the CDPHE.

Emissions of regulated criteria pollutants would be produced during the construction phase of the North Expansion Project. The majority of air emissions during construction would be respirable particulate matter in the form of fugitive dust generated by mechanical disturbances of soil during equipment movement and site preparation at the compressor station site. Fugitive dust results from land clearing, grading, excavation, concrete work, and vehicle traffic on paved and unpaved roads. The amount of dust generated is a function of construction activities, silt and moisture content of the soil, wind speed, frequency of precipitation, vehicle traffic and types, and roadway characteristics.

Criteria regulated pollutant emissions during the operation of the fossil-fueled construction equipment would occur from combustion products resulting from the combustions of gasoline and diesel fuels, primarily NO_x, CO, VOCs, PM₁₀, and small amounts of SO₂ and hazardous air pollutants (HAPs). Air pollutants from construction equipment would be limited to the immediate vicinity of the project area and would be short-term, resulting in an insignificant impact on air quality. TransColorado would be required to comply with any and all local and state regulations regarding mitigation of fugitive dust emissions.

The station would utilize three new compressors that would be driven by natural gas fired reciprocating internal combustion engines that would operate 8,760 hours per year. The compressor engines would be equipped with carbon monoxide oxidation catalysts that would reduce CO emissions by 93 percent, VOC emissions by 75 percent, and formaldehyde emissions by 80 percent. The station would also be equipped with one natural gas-fired electric generator that would be used for emergency purposes only during interruption of line power delivered to the site.

Potential to emit (PTE) is computed on a pollutant-by-pollutant basis. The proposed PTE for each emission source at the station was calculated using either emission data provided by the manufacturer or U.S. Environmental Protection Agency's AP-42 data. Air pollutant emissions by individual emission sources and total emissions by pollutant are presented in Table 3.5.

| Compressor Make & Model | Standard hp (ISO) | Station hp ^a | Pollutant | Emission Factor and Source (g/hp-hr) | Annual Operating Hours | Emissions (lb/hr) | Emissions (tpy) |
|-------------------------------------|-------------------|-------------------------|------------------|--------------------------------------|------------------------|-------------------|-----------------|
| Caterpillar G3516LE | 1150 | 1150 | NO _x | 1.65 (MFG) ^b | 8,760 | 4.18 | 18.3 |
| | | | CO | 0.147 (MFG) | | 0.41 | 1.80 |
| | | | VOC | 0.1025 (MFG) | | 0.29 | 1.25 |
| | | | SO ₂ | 0.0022 (AP-42) | | 0.0055 | 0.024 |
| | | | PM ₁₀ | 0.00027 (AP-42) | | 0.0007 | 0.003 |
| | | | Formaldehyde | 0.066 | | 0.17 | 0.73 |
| | | | Total HAP | varies | | 0.33 | 1.46 |
| Caterpillar G3516LE | 1150 | 1150 | NO _x | 1.65 (MFG) | 8,760 | 4.18 | 18.3 |
| | | | CO | 0.147 (MFG) | | 0.41 | 1.80 |
| | | | VOC | 0.1025 (MFG) | | 0.29 | 1.25 |
| | | | SO ₂ | 0.0022 (AP-42) | | 0.0055 | 0.024 |
| | | | PM ₁₀ | 0.00027 (AP-42) | | 0.0007 | 0.003 |
| | | | Formaldehyde | 0.066 (MFG) | | 0.17 | 0.73 |
| | | | Total HAP | varies | | 0.33 | 1.46 |
| Caterpillar G3608 | 2370 | 2370 | NO _x | 0.77 (MFG) | 8,760 | 4.02 | 17.61 |
| | | | CO | 0.18 (MFG) | | 1.01 | 4.42 |
| | | | VOC | 0.1625 (MFG) | | 0.93 | 4.09 |
| | | | SO ₂ | 0.0021 (AP-42) | | 0.011 | 0.047 |
| | | | PM ₁₀ | 0.00026 (AP-42) | | 0.0014 | 0.006 |
| | | | Formaldehyde | 0.096 (MFG) | | 0.55 | 2.42 |
| | | | Total HAP | varies | | 0.88 | 3.86 |
| Total Compression Related Emissions | | | NO _x | | | 12.38 | 54.21 |
| | | | CO | | | 1.83 | 8.02 |
| | | | VOC | | | 1.50 | 6.59 |
| | | | SO ₂ | | | 0.023 | 0.1 |
| | | | PM ₁₀ | | | 0.0023 | 0.01 |
| | | | Formaldehyde | | | 0.89 | 3.88 |
| | | Total HAP | | | 1.55 | 6.8 | |

^a Engines permitted at ISO horsepower. Site elevation is 2,280 meters above sea level; therefore actual engine horsepower may be less than reported.

^b MFG= manufacturer

TransColorado indicates an ambient air analysis was performed in accordance with the Colorado Guideline for Air Quality Permits (CDPHE 2002) and the EPA's Guideline on Air Quality Models (GAQM) (EPA 2003) for submittal with the CDPHE permit application. Annual air emissions of NO_x, at levels greater than the modeling threshold established by CDPHE, were modeled. Project-specific impacts were found to be greater than modeled significance levels; therefore, a cumulative modeling analysis was required to compute the combined impacts from nearby sources of NO_x.

NO_x emissions from the Project alone and from the Project and cumulative sources combined were modeled to compute an annual average NO_x concentration. The modeled NO_x concentration was converted to NO₂, following EPA guidance, for comparison to the NAAQS and CAAQS established for annual NO₂. Maximum modeled concentrations were added to an annual NO₂ background concentration of 7.5 µg/m³, defined by CDPHE as representative of the region.

The maximum modeled project and cumulative concentrations, plus background, are present in Table 3.6. All modeled concentrations indicate that operation of the Project would be in compliance with NAAQS and CAAQS.

| Table 3.6 Modeled Impacts Summary | | | | | |
|-----------------------------------|---|---|--|----------------------------|----------------------------|
| Pollutant | Maximum Annual Concentration (µg/m ³) | Background Concentration (µg/m ³) | Total Concentration (µg/m ³) | NAAQS (µg/m ³) | CAAQS (µg/m ³) |
| NO ₂ (Project) | 2.3 | 7.5 | 9.8 | 100 | 100 |
| NO ₂ (Cumulative) | 77.9 | 7.5 | 85.4 | 100 | 100 |

TransColorado would comply with Colorado regulations concerning the mitigation of fugitive dust emissions; therefore, the Project would incorporate sufficient measures to ensure adequate protection of air quality during construction. Operational impacts would be controlled by the state permitting process, which may include mitigative measures. Air emissions would result primarily from the operation of the gas turbines and internal combustion engines used in compressing natural gas for transportation through the pipeline. Based on the properties of a properly operating compressor station, no visible emissions (other than possible heat shimmer) from the compressor station exhaust stacks are anticipated. Based on this analysis, the North Expansion Project would not significantly affect local air quality.

3.10 Noise

Construction, modification, and operation of the proposed North Expansion Project facilities would affect the local noise environment. The ambient sound level of a region is

defined by the total noise generated within the specific environment, and is usually comprised of sounds emanating from natural and artificial sources. At any location, both the magnitude and frequency of environmental noise may vary considerably over the course of a day and throughout the week. This variation is caused in part by changing weather conditions and the effect of seasonal vegetative cover.

Two measurements used by some federal agencies to relate the time-varying quality of environmental noise to its known effects on people are the equivalent sound level (L_{eq}) and the day-night sound level (L_{dn}). The L_{eq} is an A-weighted sound level containing the same sound energy as the instantaneous sound levels measured over a specific time period. Noise levels are perceived differently, depending on length of exposure and time of day. The L_{dn} takes into account the duration and time the noise is encountered. Late night and early morning (10:00 pm to 7:00 am) noise exposures are penalized +10 decibels, to account for people's greater sensitivity to sound during the nighttime hours.

In 1974, the EPA published its *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*. This document provides information for state and local governments to use in developing their own ambient noise standards. The EPA has indicated that an L_{dn} of 55 decibels on the A-weighted scale (dBA) protects the public from indoor and outdoor activity interference. We have adopted this criterion and use it to evaluate the potential noise impact from operation of the compressor facilities.

The State of Colorado has a noise standard (Colorado Noise Statute 25-12-103) that limits allowable noise levels from a facility by the land use zone that the receiver is located in, including industrial, commercial, and residential. According to the standard, noise levels radiating from a source should not exceed the noise levels for the appropriate land use zone. The most restrictive levels are for residential zones. An exemption exists under the state law for any facility that is permitted under a federal action.

Noise emitted by the proposed compressor station would essentially be constant throughout the day. As such, the FERC standard, that limits allowable noise at any noise sensitive area (NSA) to 48.6 dBA on a continuous basis (which equates to an L_{dn} of 55 dBA), is more restrictive than the State of Colorado standard, and is the acoustic design goal for the Project.

The construction of the Project would cause temporary increases in the ambient sound environment in the immediate vicinity of the construction sites. During construction, TransColorado would be required to comply with any local construction noise requirements and limit construction activities to daylight hours. Nighttime noise levels would normally be unaffected by construction activities, as most construction is typically restricted to daylight hours.

Primary noise sources associated with compressor station operation include the generator, compressor engine, intake, exhaust, and cooler fans. TransColorado conducted ambient sound surveys at the proposed site to document the acoustical environment and locate NSAs. TransColorado has identified one potential NSA in the area of the Project site. The NSA (NSA-

1) is a mobile home located approximately 1,900 ft north of the compressor station. It is used temporarily by employees of another operator at the Greasewood Hub.

For purposes of this noise analysis, the noise impacts from all three compressors operating simultaneously are addressed. Each compressor/engine would be housed within its own acoustical enclosure (building). Exterior sources would include the engine air intake and exhaust (stack) and a cooling radiator. Estimated sound level data for the compressor/engine buildings and cooling radiators were provided by TransColorado from recently installed facilities that utilize the same engines and equipment as this project. Estimated sound levels for the engine air intake and exhaust were developed from the literature (BBN 1969), which provides a methodology for calculating engine intake and exhaust noise based on the hp ratings of each engine. Silencers were also added to the engine exhausts and air intakes.

TransColorado used a computer noise model for the noise analysis. To remain conservative in the analysis, the model was configured to account only for distance, existing topography and atmospheric absorption. No credit was taken for absorption which would occur from foliage or ground cover, and no credit was taken for directivity effects from the stack. A summary of the existing and predicted noise modeling results at NSA-1, incorporating noise control features, is presented in Table 3.7.

| Table 3.7 Noise Analysis Summary (dBA) | | | | | |
|--|---------------------------|-------------------|----------------------------------|----------------|----------------|
| Location | Distance to Location (ft) | Existing L_{dn} | Additional L_{dn} ^a | Total L_{dn} | Noise Increase |
| NSA1 | 1,900 | 60.8 | 52.1 | 61.3 | 0.5 |

^a Proposed compressor station noise level.

TransColorado incorporated the following noise mitigation features and/or specifications into the analysis to achieve the above noise level at the nearest NSA:

- a noise limit of 75 dBA at 50 ft for the engine/compressor buildings;
- a nominal 35 dBA silencer for the engine exhaust stacks;
- a nominal 15 dBA silencer for the engine air inlets; and
- a noise limit of 85 dBA at 3 ft for the fan coolers.

The noise modeling results reveal that, with mitigation measures incorporated, calculated noise levels from the proposed facility would result in an L_{dn} of 52.1 at NSA-1, below the FERC limit of 55 dBA L_{dn} . The projected increases in total noise at this location would be less than 1 dBA. A 3 dBA increase is the threshold of a noticeable difference. Therefore, there would not be a significant impact on the noise quality in the area. However, to ensure that the noise attributable from operation of the compressor station is not significant, **we recommend that:**

TransColorado file a noise survey with the Secretary no later than 60 days after placing the Greasewood Compressor Station in service. If the noise attributable to the operation of all of the equipment at the Greasewood Compressor Station at full

load exceeds an L_{dn} of 55 dBA at any nearby NSAs, TransColorado should file a report on what changes are needed and shall install the additional noise controls to meet the level within 1 year of the in-service date. TransColorado should confirm compliance with the above requirement by filing a second noise survey with the Secretary no later than 60 days after it installs the additional noise controls.

If the recommended compressor station surveys verify that noise levels have been adequately controlled, we believe that project-related noise impacts at the nearest NSAs would not be significant.

3.11 Reliability and Safety

The project would be designed, constructed, operated, and maintained in accordance with title 49 Code of Federal Regulations, Part 192. These regulations are meant to ensure adequate protection for the public from natural gas transmission facility failures. The project must comply with these regulations. Therefore, we believe that the risk posed by the project would be negligible, particularly in light of the safety factors required by the Minimum Federal Safety Standards.

3.12 Cumulative Impacts

The Project area is in a heavily developed area that has been impacted by numerous compressor stations, meter stations, pipelines, and associated gas transmission facilities. The North Expansion Project would add incrementally to existing impacts to the resources identified in the EA. Using data provided by the Colorado Department of Public Health and Environment, NO_x emission levels from existing sources in the area were converted to NO_2 , following EPA guidance, for comparison with NAAQS and CAAQS established for NO_2 . The Project would add $2.3 \mu\text{g}/\text{m}^3$ to produce a maximum total concentration (including background) of $85.4 \mu\text{g}/\text{m}^3$ of NO_2 . Both the NAAQS and CAAQS are $100 \mu\text{g}/\text{m}^3$. All modeled concentrations indicate that the operation of the Project would be in compliance with these standards. The Flat Tops Wilderness Area is located approximately 34 miles east of the Greasewood Hub, and the incremental increase in emissions at Greasewood would not significantly affect air quality and visibility at the Flat Tops Wilderness Area.

We have identified potential cumulative impacts of noise sources in the Greasewood Hub area. The NSA nearest the Project--a mobile home occupied occasionally by employees of other companies that operate facilities in the area--is located approximately 1,900 feet north of the Project. The noise level from existing facilities operated by other companies is 60.8 dBA L_{dn} . Noise modeling predicts that the Project would produce 52.1 dBA L_{dn} at the receptor resulting in an increase of 0.5 dBA to a total noise level at the NSA of 61.3 dBA L_{dn} . This increase would not be perceptible to the human ear.

The currently proposed El Paso Pipeline Project potentially could add to impacts in the area. Those impacts are being evaluated in the NEPA document for that project. However, all activities at the Greasewood Hub are required to be in conformance with existing federal, state,

and local laws and regulations for protecting the human environment. Therefore additional cumulative impacts beyond existing impacts would be minor.

3.14 Alternatives

3.14.1 No-Action Alternative

The TransColorado North Expansion Project would not be approved under the No Action Alternative. Market access for the developing natural gas supplies in the Piceance Basin would continue to present a problem and pipeline transport capacity from the Piceance Basin would become increasingly constrained as producers proceed with their drilling programs. Without the North Expansion Project, TransColorado could not provide the infrastructure necessary to transport gas northward from the Piceance Basin and deliver that gas into higher pressure interconnecting pipelines at the Greasewood Hub. None of the economic benefits would occur. Under the No Action Alternative, no further surface disturbance or additional air emissions would occur.

3.14.2 System, Site, and Route Alternatives

The compressor station location was chosen because the natural gas to be compressed is being delivered to the existing CIG facility, and TransColorado currently holds the ROW for facilities on the land in the vicinity of the CIG facility. The site is adjacent to other compressor stations, pipelines, and metering facilities, and there are no sensitive environmental resources involved. Furthermore, no alternatives were considered because of the station development already present in the Greasewood Hub area, compressor station construction at this location would not result in unnecessary or undue harm to the environment.

Two 24-inch diameter discharge pipeline routes were considered, both of which would cross several other pipelines. Neither route alternative is likely to cause unacceptable adverse effects. However, one route was rejected because the location of existing facilities, including the CIG compressor facility and a gravel road, would make construction impractical.

4.0 STAFF'S CONCLUSION AND RECOMMENDATIONS

Based on the above environmental analysis and information in TransColorado's application, we have determined that approval of this proposal would not constitute a major Federal action significantly affecting the quality of the human environment. We recommend that a finding of no significant impact be included in the Commission's Order and the following mitigation measures be included as conditions to the certificate:

1. TransColorado shall follow the construction procedures and mitigation measures described in its application and supplement including responses to staff data requests and as identified in the environmental assessment (EA), unless modified by this Order. TransColorado must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification**.
2. The Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:
 - a. the modification of conditions of this Order; and
 - b. the design and implementation of any additional measures deemed necessary (including stop work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.
3. **Prior to any construction**, TransColorado shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors, and contractor personnel will be informed of the environmental inspector's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.
4. TransColorado shall file noise surveys with the Secretary **no later than 60 days** after placing the Greasewood Compressor Station in service. If the noise attributable to the operation of all of the equipment at the Greasewood Compressor Station at full load exceeds an L_{dn} of 55 dBA at any nearby (NSAs or noise-sensitive areas), TransColorado shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. TransColorado shall confirm compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.

5.0 LITERATURE CITED

- Bailey, A.M., and R.J. Niedrach. 1965. Birds of Colorado. Denver Museum of Natural History. 895 pp.
- Bolt, Beranek and Newman, Inc. 1969. Noise control for reciprocating and turbine engines driven by natural gas and liquid fuel. Prepared for American Gas Association.
- Bureau of Land Management. 1992. Final environmental impact statement, TransColorado gas transmission project, Colorado/New Mexico. U.S. Department of the Interior, Bureau of Land Management, Montrose District Office, Montrose, Colorado. 415 pp. + append.
- _____. 1996. White River Resource Area proposed Resource Management Plan and final environmental impact statement. U.S. Department of the Interior, Bureau of Land Management, White River Resource Area, Craig District Office, Craig, Colorado.
- _____. 1998. Supplement to final environmental impact statement, TransColorado gas transmission project, Colorado/New Mexico. U.S. Department of the Interior, Bureau of Land Management, Montrose District. 116 pp. + append.
- Code of Federal Regulations*. 18 C.F.R. 380-12. Title 18 – Conservation of power and water resources.
- Colorado Division of Wildlife. 2004. Colorado listing of endangered, threatened, and wildlife species of special concern. <http://www.wildlife.state.co.us/species_cons/list.asp>. Accessed September 2004.
- Colorado Natural Heritage Program. 2004. Database search results for the Greasewood Gulch 7.5' series quadrangle, provided to Karyn Coppinger, TRC Mariah Associates Inc., Laramie, Wyoming.
- Federal Emergency Management Agency. 2004. <http://www.gis.msc.fema.gov/website/DIFRM_viewer/viewer.htm>. Accessed November 2004.
- Meany, C.A. 1990. Colorado mammal distribution latilong study. Colorado Division of Wildlife and the Denver Museum of Natural History, Denver, Colorado. 31 pp.
- State of Colorado. Colorado noise statute. 25-12-103 – Maximum Permissible Noise Levels.
- Stebbins, R.C. 1966. A field guide to western reptiles and amphibians. The Peterson Field Guide Series, Houghton Mifflin Company, Boston, Massachusetts. 279 pp.
- Topper, R., K.L. Spray, W. H. Bellis, J.L. Hamilton, and P.E. Barkmann. 2003. Ground water atlas of Colorado. Colorado Geological Survey Special Publication 53. Division of Minerals and Geology, Department of Natural Resources, Denver, Colorado. 210 pp.

Tripp, W.P., L.W. Williams, D.K. Alstatt, J.J. Rawinski, and C.F. Spears. 1982. Soil survey of Rio Blanco County area, Colorado. U.S. Department of Agriculture, Soil Conservation Service. 219 pp. + append.

U.S. Fish and Wildlife Service. 2004. Colorado federally listed and proposed (P), endangered (E), threatened (T), experimental (X), and candidate (C) species and habitat in Colorado by county. <<http://mountain-prairie.fws.gov/endspp/CountyLists/COLORADO082003.htm>>. Accessed April 2004.

Table 4.1 List of Preparers

Manco, Magdalene – Environmental Project Manager, Air Quality/Noise

B.S., Environmental Systems Engineering, 2004 (Pennsylvania State University)

Button, Van – Cultural Resources

M.A., Anthropology, 1976 (University of Arizona)

B.A., Anthropology, 1973 (Reed College)

Hanobic, David – Biology

B.S., Biology, 2004 (Lock Haven University of Pennsylvania)

Polit, Juan – Soils, Land Use

M.S., Forest Ecology, 1992, (University of Illinois)

B.S., Forestry, 1989, (University of Illinois)